SIEMENS

MAMMOMAT 300/1000/3000

SP

Planning Guide

English
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Replaces: RXB7-120.021.01.05.02

Chapter	Page	Revision
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General notes

- With distribution of this revision level, all preceding planning guides, Speed - Infos (PG's) and drafts lose their validity.
- All layouts issued by the Planning Departments must bear a note referring to the installation and delivery conditions of Siemens Medical Engineering Group. The installation and delivery conditions must be submitted with the layouts.
- Unless otherwise specified, all dimensions are indicated in "mm".
- The symbol indicates a change (see revision status).
- Orientation points
  Points specific to system components to which reference is made when positioning system components to each other or in the room.
  The isocenter of a radiographic system is always illustrated as the orientation point.
- Fixpoints
  Clearly marked points on system components, installation ceiling, walls or floor on which cable outlets are located.
  Illustration in the drawings: circle with letter/number-combination.
  The cable lengths establish the maximum fixpoint distances and thus the maximum distances between the individual system components.
- Room height
  The room height is the distance measured from the top surface of the floor to the bottom surface of the ceiling structural elements (Unistrut rails) (bottom surface of drop ceiling).

Safety

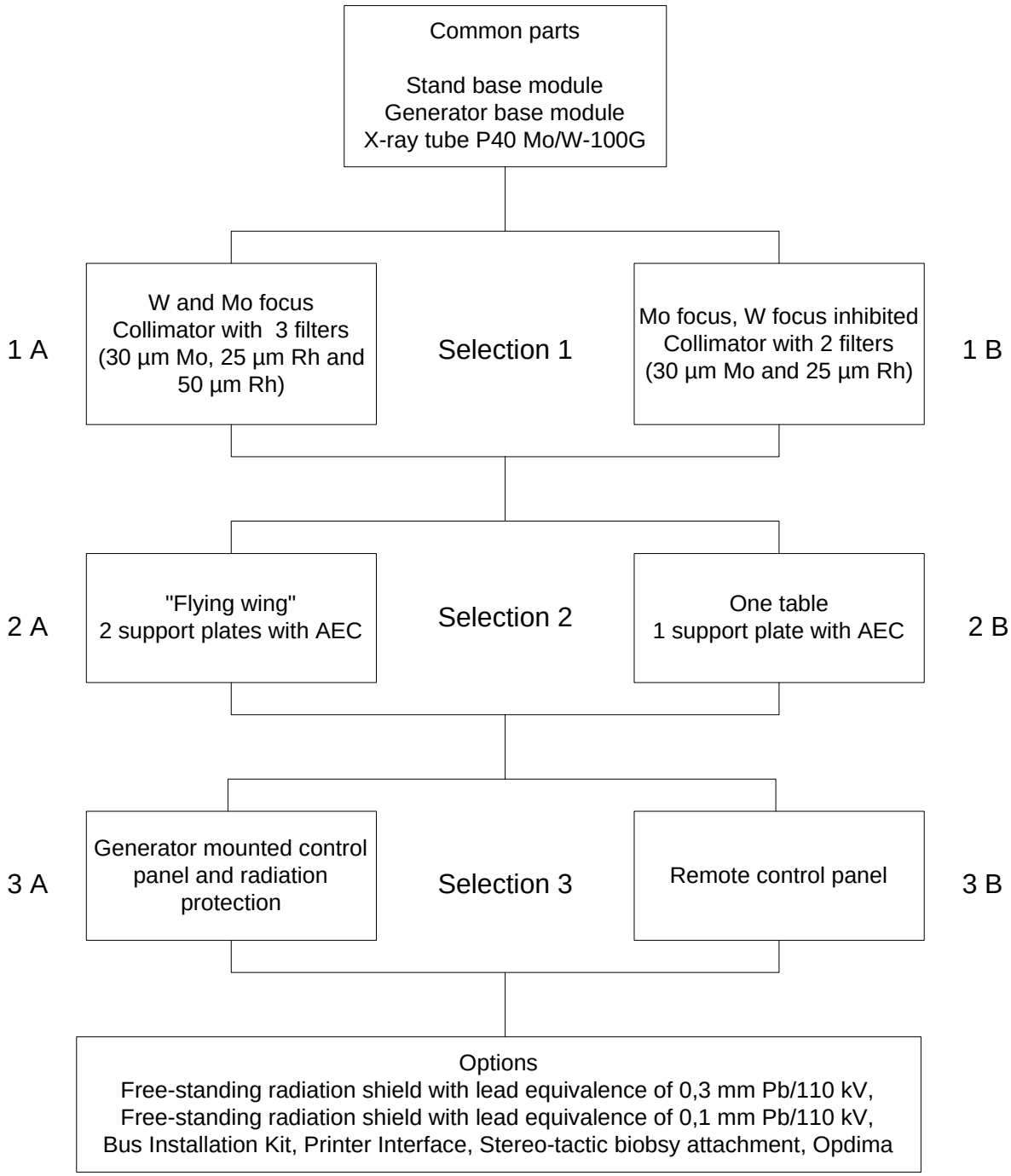
- The provisions of the relevant fire protection regulations must be observed for the premises.
- The system has been developed according to EN 60601 - 1.
- Minimum dimensions (e. g. room heights, safety distances) indicated in the planning guides are marked "min."
- Basic resistance to electromagnetic sources of interference.
  Result of lightning discharges.
  The protection targets of the different lightning protection areas up to the unit connection are also specified in the IEC 1024, DIN 48810, VDE 0675 and in the DEMVT recommendations.

Hotline Tel. (+49) (0) 9191/18 - 8080

This Planning Guide is valid for:

- MAMMOMAT 300 beginning with serial number 04001 ...
- MAMMOMAT 3000 beginning with serial number 03001 ...
  - Stereotactic biopsy attachment beginning with serial number 03001 ...
- MAMMOMAT 3000 beginning with serial number 05001 ...

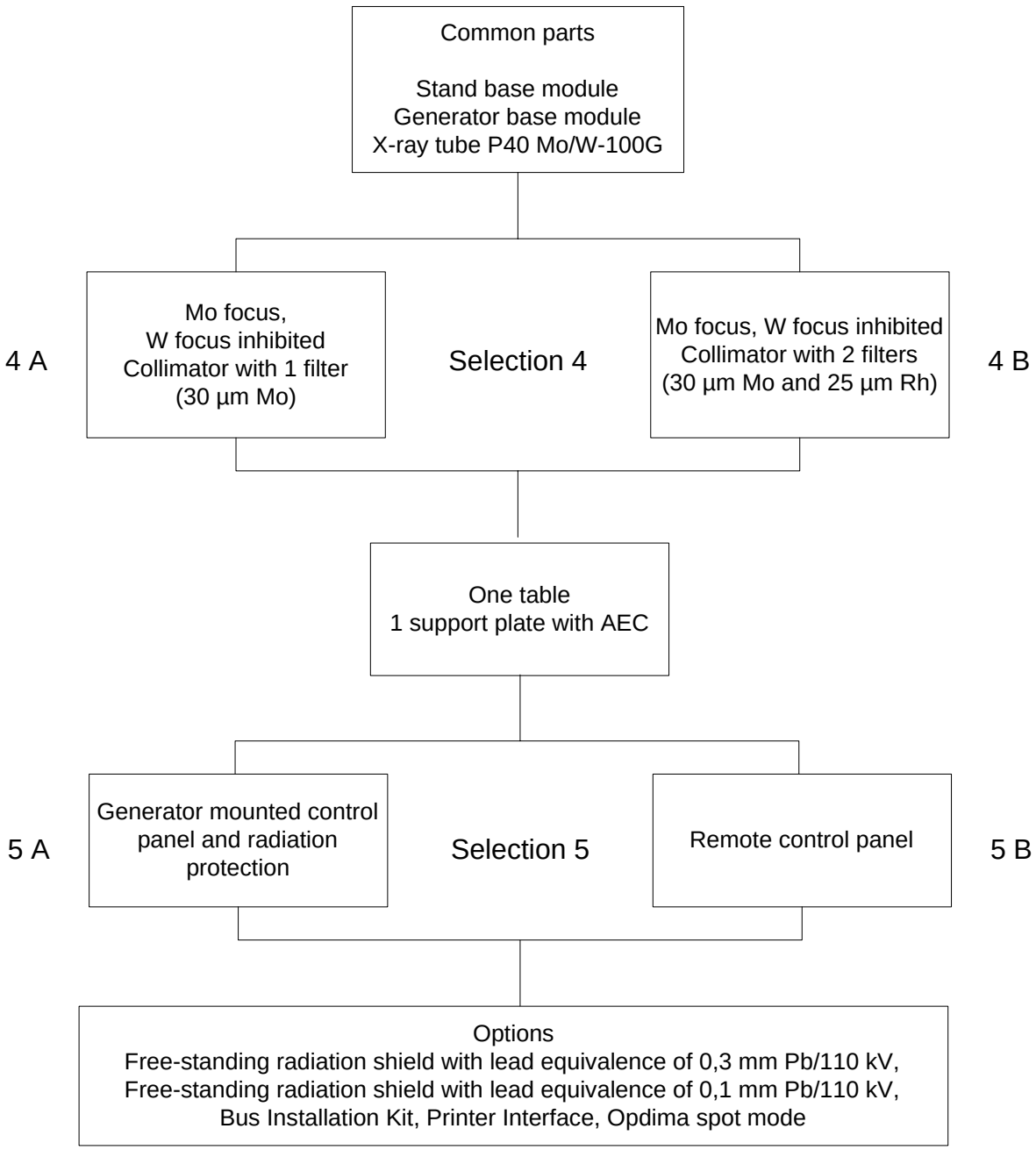
The MAMMOMAT 3000 beginning with serial number 05001 is available in 8 versions as the customer can make 3 choises when ordering the MAMMOMAT.



This Planning Guide is valid for:

- MAMMOMAT 3000 beginning with serial number 06501 ...

In addition to the 8 versions of the MAMMOMAT 3000 beginning with Serial number 05001, there are 4 versions beginning with Serial number 06501 of the MAMMOMAT 1000 available.
The customer can make 2 more choises when ordering the MAMMOMAT.



System configuration

(schematic)

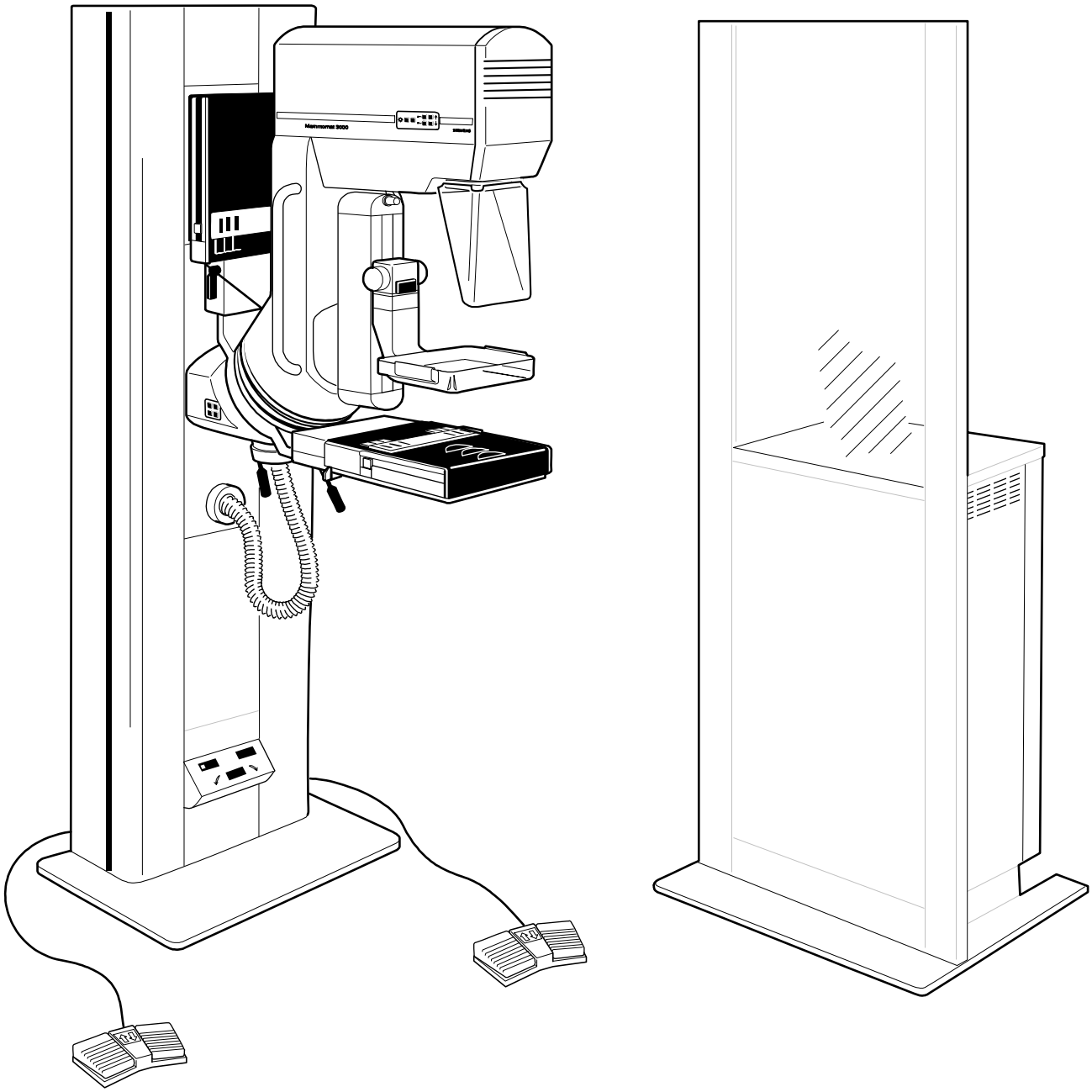
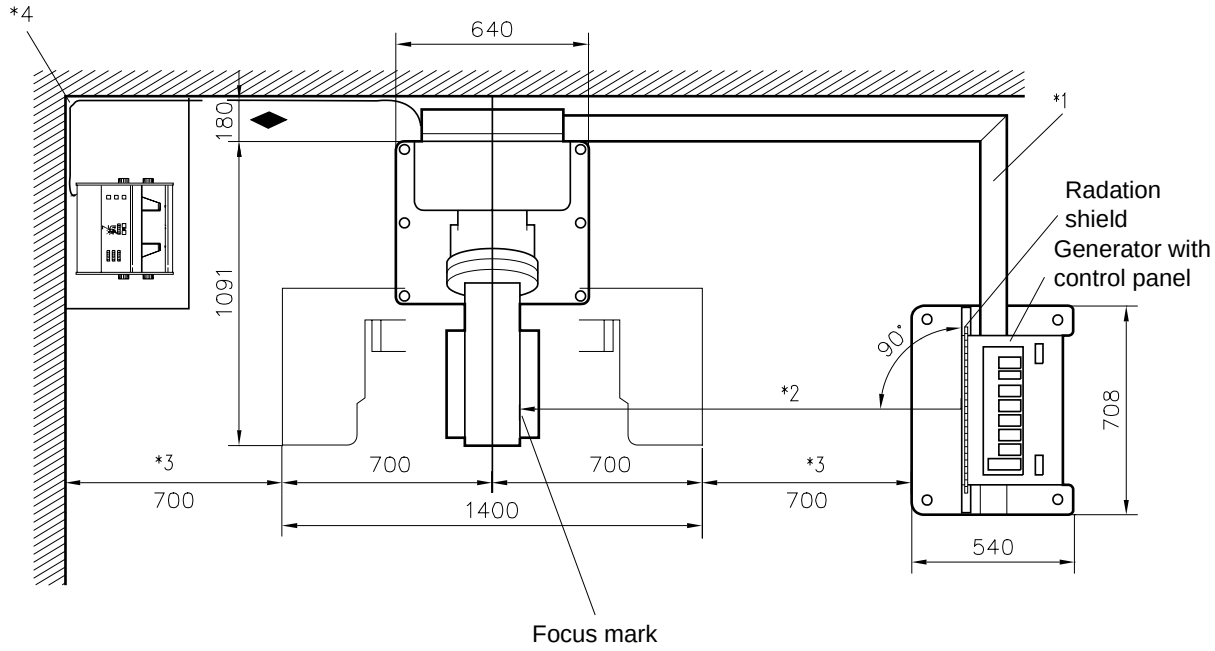


figure shows MAMMOMAT 3000

Dimensions for the MAMMOMAT 300/ 1000/ 3000

- MAMMOMAT 300 beginning with serial number 04001...
- MAMMOMAT 3000 beginning with serial number 03001...
- MAMMOMAT 1000/ 3000 beginning with serial number 05001... in the configuration: Generator with integrated operating control and radiation protection shield.



*1 The cable conduit and generator can be installed either to the left or right of the stand. The maximum cable length between the stand and the generator is 3.5 m. Two cable conduits, each 2 m long, are included in the shipment. The cables can also be laid below the floor (i.e. on the ceiling of the room below). To install or remove the rear stand cover panel, a minimum space of 180 mm between the wall and stand is required.

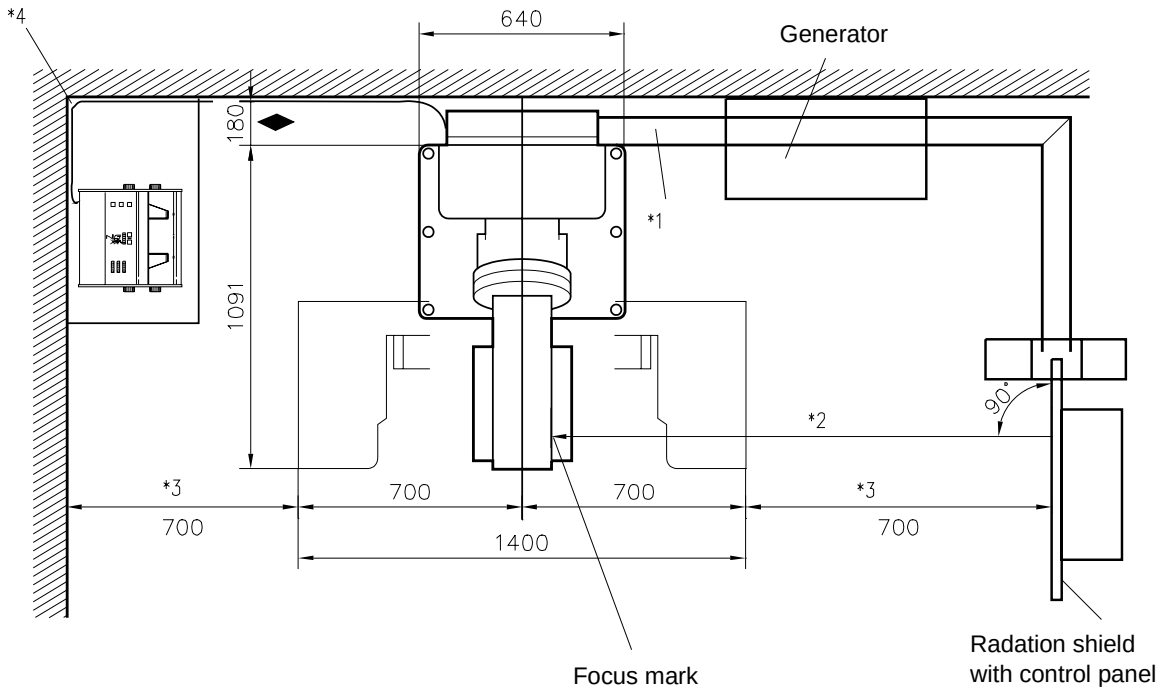
*2 Center the radiation protection shield at a right angle to the swivel arm system and the focus marking as shown in the *figure* above.
Lead equivalent value of the radiation protection shield: 0.3 mm Pb/110 kV.

*3 Upon customer request the recommended minimum distance between the base plate of the generator and the wall can be reduced if in compliance with local requirements.

*4 Cable of the evaluation unit is routed along the wall.

NOTICE **Remember to provide sufficient storage space for the stereotactic biopsy attachment when planning MAMMOMAT 3000 space requirements. Refer to page 2-10.**

- MAMMOMAT 1000/ 3000 beginning with serial number 05001 in the configuration:
  External operating console attached to the optional radiation protection shield.



◆ *1 The cable conduit and generator can be installed either to the left or right of the stand. The maximum cable length between the stand and the generator is 3.5 m. Two cable conduits, each 2 m long, are included in the shipment. The cables can also be laid below the floor (i.e. on the ceiling of the room below). To install or remove the rear stand cover panel, a minimum space of 180 mm between the wall and stand is required.

*2 Center the radiation protection shield with the attached operating console at a right angle to the swivel arm system and the focus marking as shown in the *figure* above.
Lead equivalent value of the radiation protection shield: 0.3 mm Pb/110 kV or 0.1 mm Pb/110 kV.

NOTICE **Order additional cable ducts, item number 64 38 795 X041E, if required between the generator and the operating console. Each cable duct is 2 m long.**

*3 Upon customer request the recommended minimum distance between the base plate of the generator and the wall can be reduced if in compliance with local requirements.

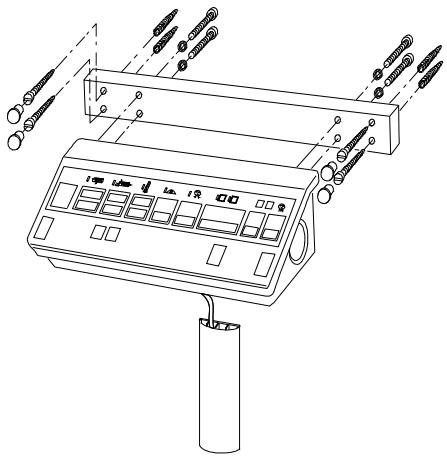
*4 Cable of the evaluation unit is routed along the wall.

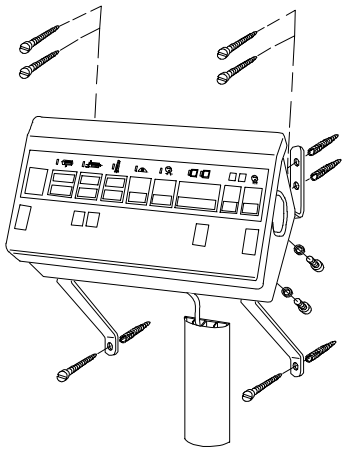
NOTICE **Remember to provide sufficient storage space for the stereotactic biopsy attachment when planning MAMMOMAT 3000 space requirements. Refer to page 2-10.** ◆

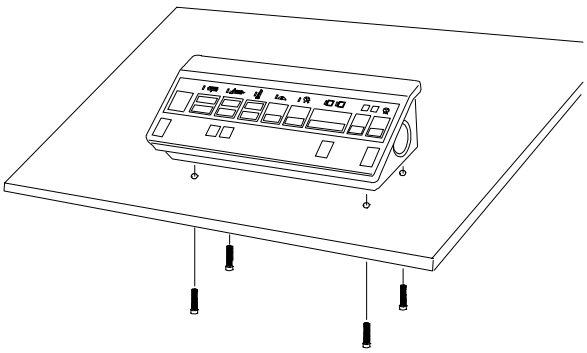
Attaching the remote control panel to the wall or on a table

NOTICE

If the system is not equipped with the optional radiation protection shield, attach the remote control panel to the wall or on a table located behind an on-site radiation protection shield.
Max. cable length to the generator: 10 m
No additional cable ducts are delivered for this configuration.
Refer to "Notice" on page 2-2.







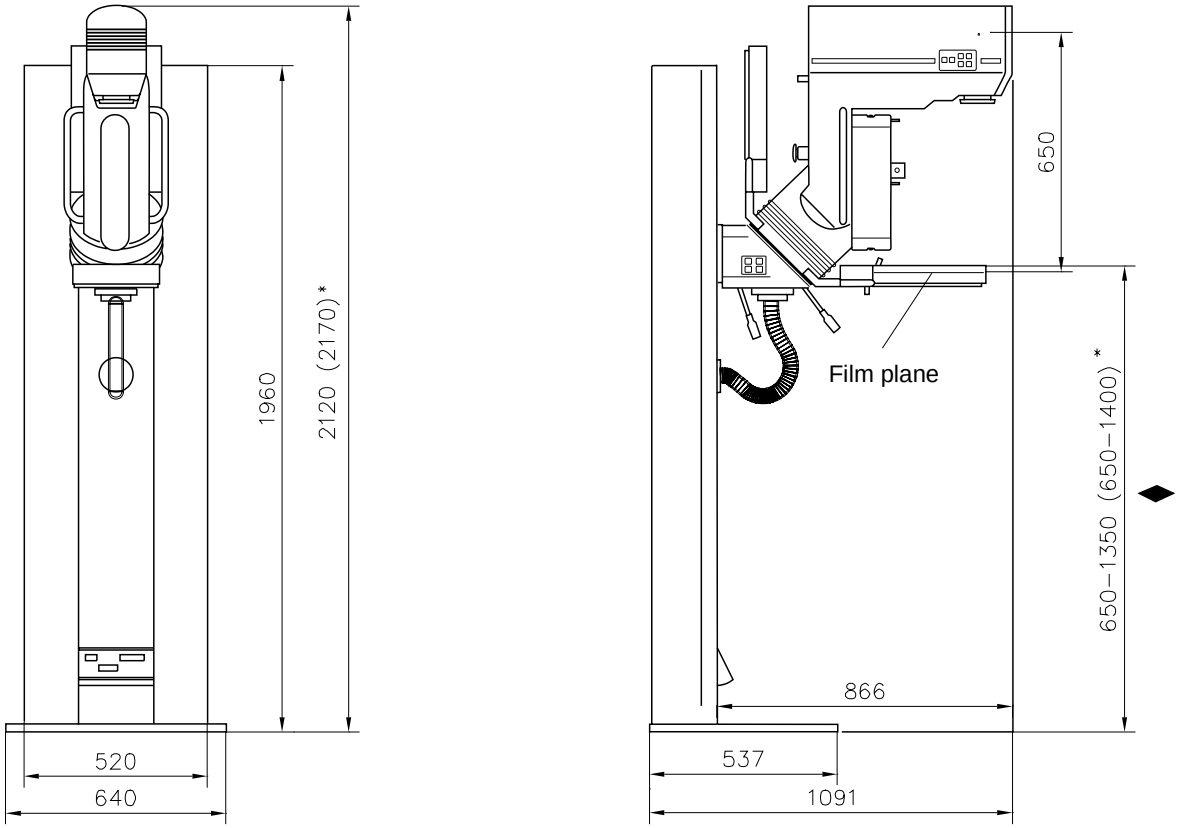
- **Dimensions of the external control console:**
  L 520 mm x W 200 mm x H 80 mm

Attach the remote control panel at the wall or on the table, as shown in *figures*. The parts for attaching the remote control panel either vertically or horizontally to the wall are included in the delivery volume.

NOTICE

We do not supply anchors or screws. Please obtain these locally and ensure that they are suitable for the material used in the wall.

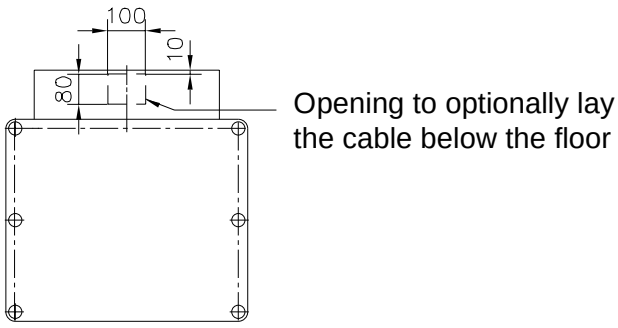
Measurements of the column



* The measurements shown in brackets apply to the MAMMOMAT 300 only.

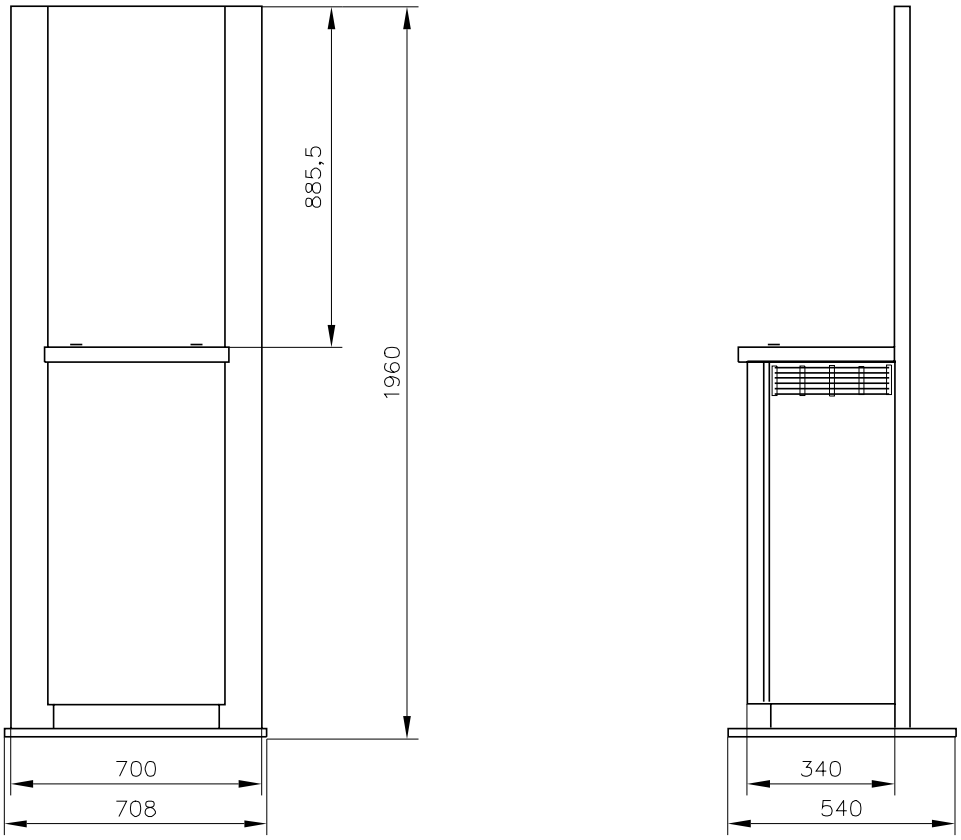
NOTICE **The figure shows the maximum configuration of the MAMMOMAT 3000 with "flying wing ".**

Mounting plate of the stand



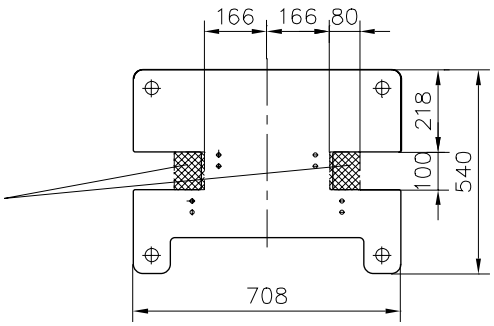
Measurements for the generator ♦

Generator with integrated radiation protection shield and operating console



Mounting plate of the generator (with integrated radiation protection shield and operating console)

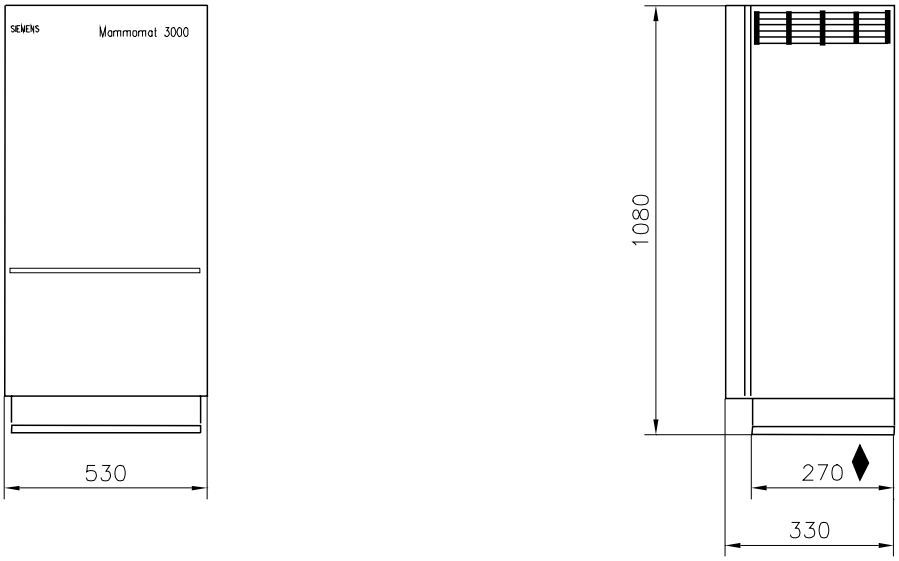
Opening to optionally lay the cable below the floor (either to the left or right)



Operator’s side

Measurements for the generator ♦

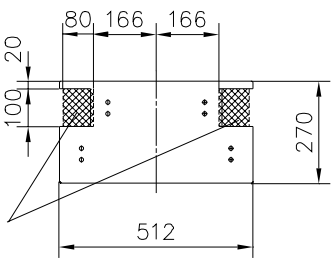
Generator for external operating console



NOTICE

The base plate for a generator without integrated radiation or operating console is shorter to allow for closer installation to the wall. For this reason the generator has to be bolted to the wall or the floor. The mounting brackets for wall support are included in the delivery volume. Anchors or screws are not supplied, since their selection depends on the material of the wall or the floor, please obtain them locally. We recommend that you use Liebig anchors M6 S10/35 for bolting the generator to the floor.

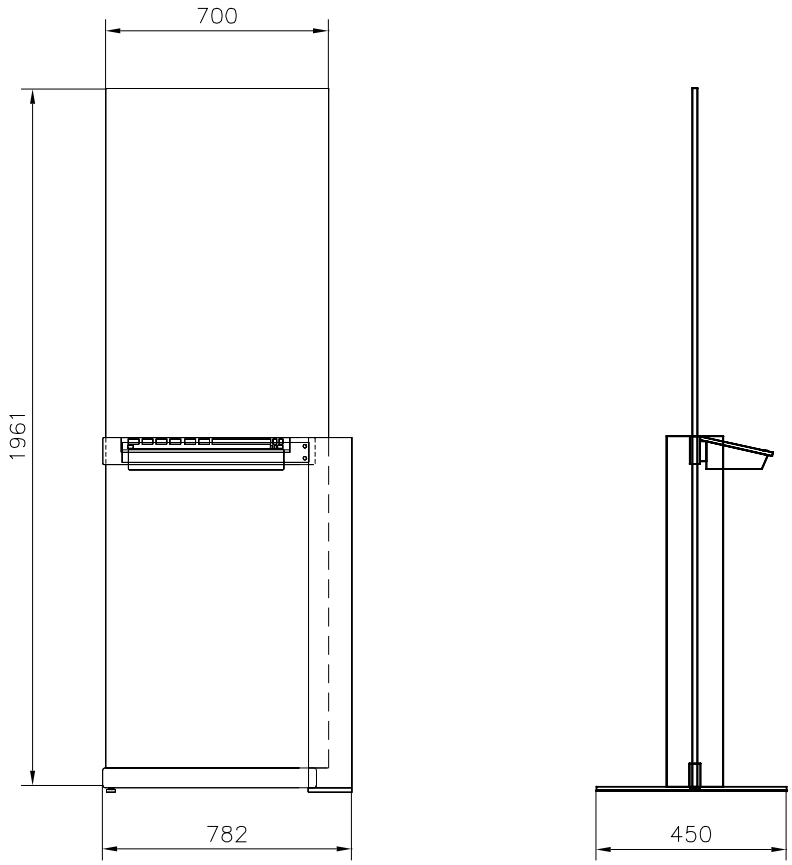
Mounting plate of the generator (for external operating console)



Opening to optionally lay the cable below the floor (either to the left or right)

Operator's side

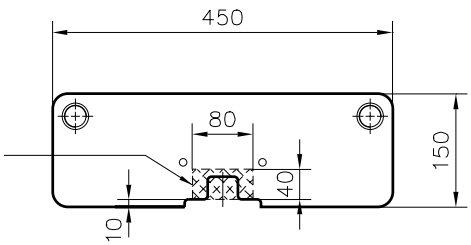
Measurements for the radiation protection shield (optional) ⧫



NOTICE	**The free-standing radiation shield has to be bolted to the floor. Anchors or screws are not supplied, since their selection depends on the material of the floor, please obtain them locally. We recommend that you use Liebig anchors M6 S10/35.**

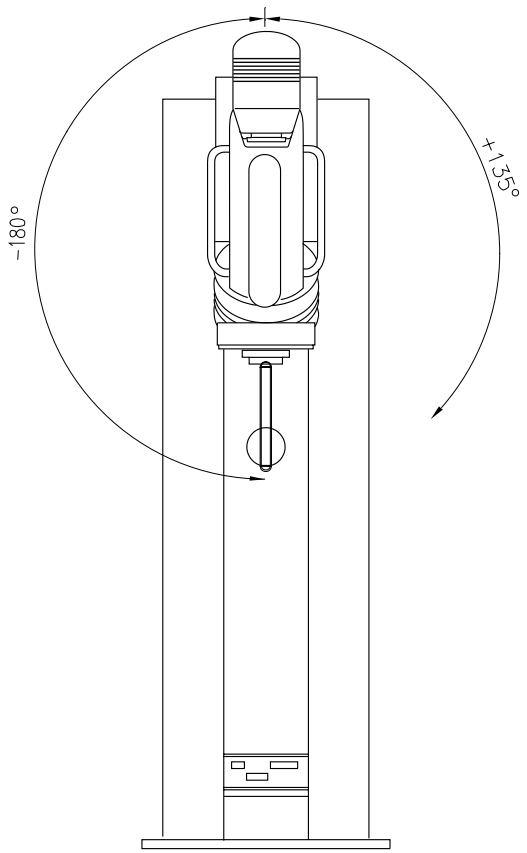
Mounting plate of the radiation protection shield

Opening to optionally lay the cable below the floor



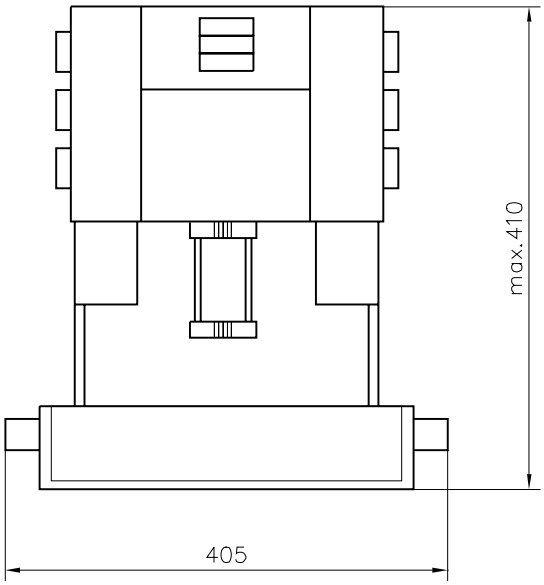
NOTICE	**The radiation protection wall can be installed either to the right or to the left of the column.**

Range of the swivel arm system

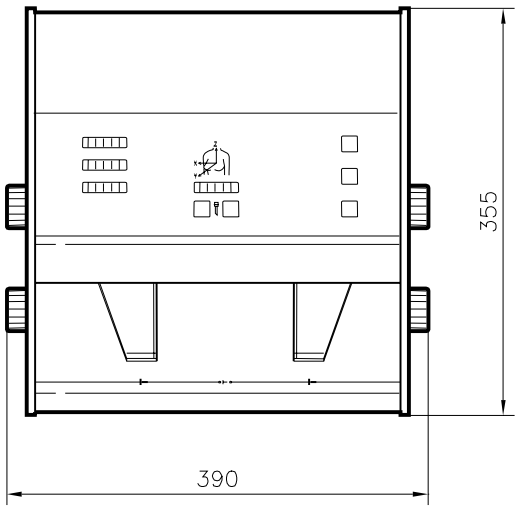


Stereotactic biopsy attachment (option for MAMMOMAT 3000)

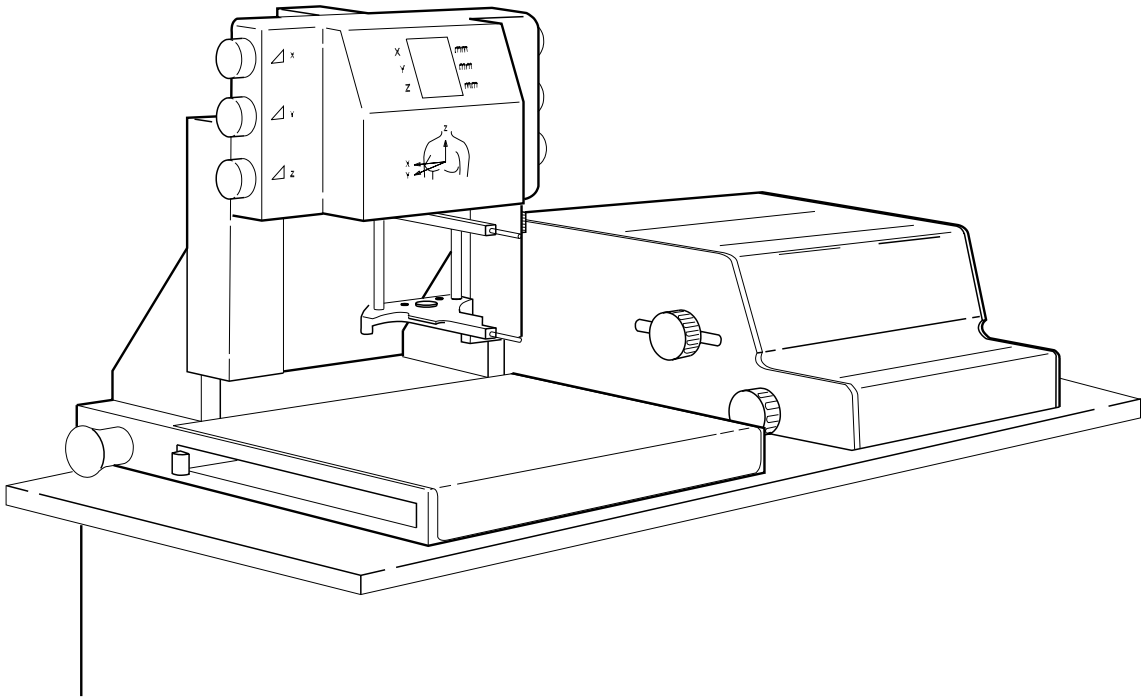
Biopsy unit



Evaluation unit



Dimensions of the biopsy unit (W x D x H):	405 mm x 370 mm x max. 410 mm
Weight of biopsy unit	12 kg
Dimensions of the evalution unit (W x D x H):	390 mm x 355 mm x 145 mm
Weight of the evaluation unit	12 kg



Biopsy unit and evaluation unit on a shelf mounted to the wall. The storage space on the shelf should be 500 mm x 900 mm. The maximum height of the biopsy unit is 410 mm.

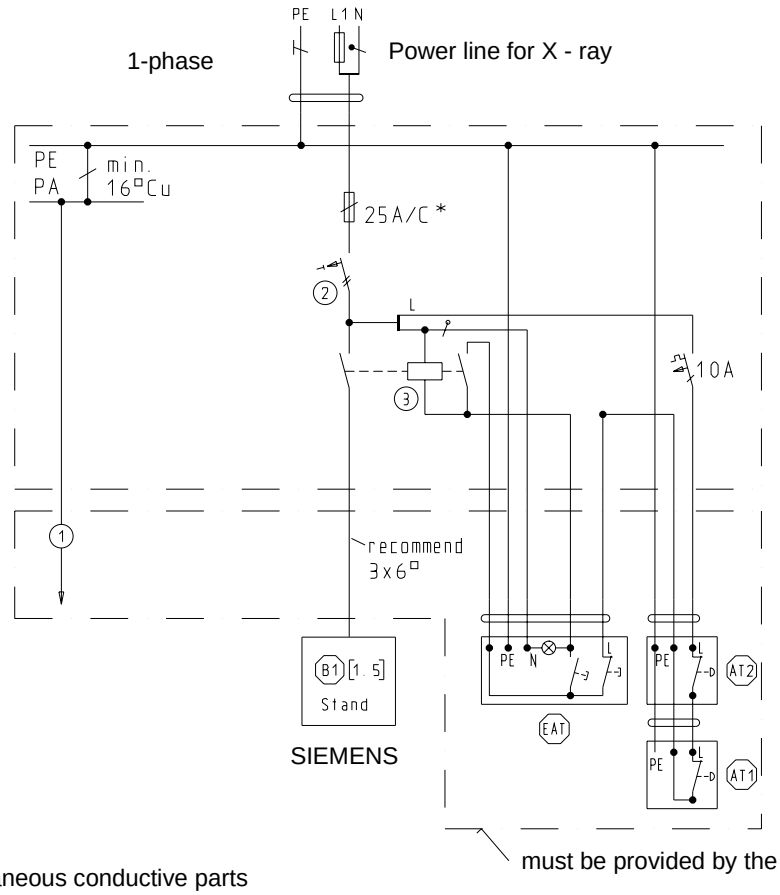
Line voltage

230 V, 50/60 Hz

NOTICE	**Max. cable length between the column and the evaluation unit is 5 m. Depending on the installation, the maximum useful cable length may be limited to 4.5 m.**

Recommendation for On-site Electro Installation

Proposal for building power distribution to DIN VDE 0107 or applicable country - specific regulations



1 To extraneous conductive parts

2 FI - switch 63 A/I $_{\Delta N}$ 30 mA, U_N = 400/415 V ~ for alternating and pulsing direct current faults (recommendationing: Siemens FI 5SZ3 466 0KG00 All-current sensitive or ABB No. F 804 - 63 /0,03. Order from ABB Stotz - contact Heidelberg Tel. 06221 701-00).
For other power line voltages, an approriate Fi - switch must be obtained locally.

3 System breaker

* with U=110 V; 50 A slow-blowing fuse

AT Emergency shutdown button with lock

B1 SIEMENS

EAT On/off button with pilot lamp

[ ] Figures are free lengths in m

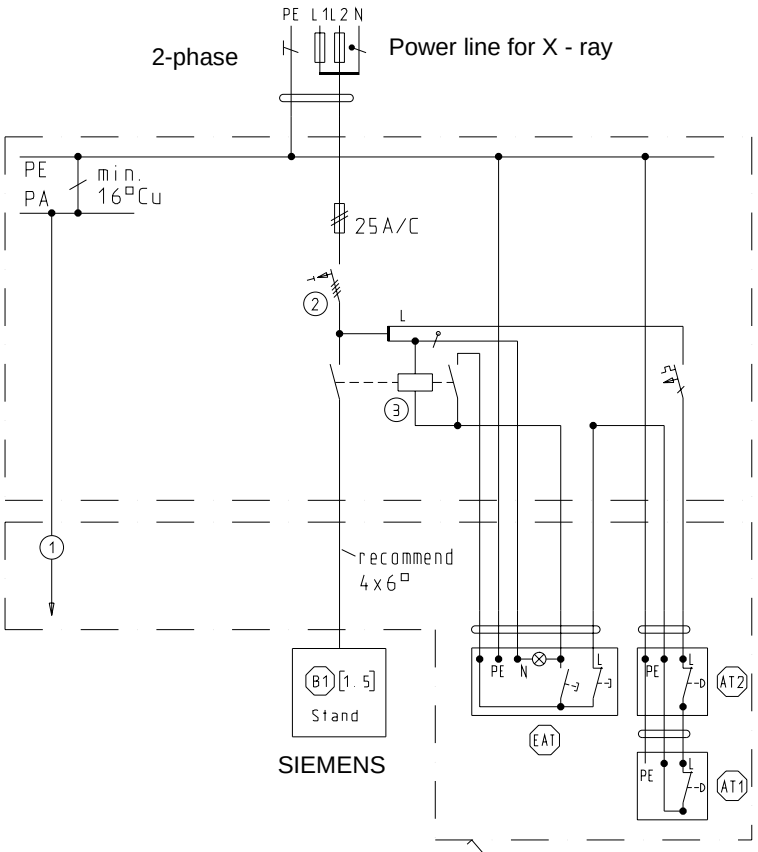
NOTICE **Reduce the output (refer to the installations instructions), if the internal line impedance Ri exceeds the values given (refer to page 4-1).**

This is a dedicated power line. Therefore do not connect the following:

- Electrical systems
- Heating/air conditioning units
- Elevators
- General electrical devices

Recommendation for On-site Electro Installation

Proposal for building power distribution to DIN VDE 0107 or applicable country - specific regulations



must be provided by the customer

(1) To extraneous conductive parts

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Electrical data

Line voltage connection	1~110 V ±10 % 50/60 Hz 1~/2 ~208, 230, 240, 277 V ±10% 50/60 Hz 2~400 V ±10 % 50/60 Hz	
Power line	Recommended cross section: 6 mm^2	
Internal line impdance Ri	U_N[V] 110 208 230 240 277 400	Ri_{max}[Ω] 0.25 0.45 0.50 0.60 0.65 0.85
Fuses (internal)	20 A at 208, 230, 240, 277 and 400 V/ 35 A at 110 V	
I max.	40 A at 230 V, 80 A at 110 V, 35 A at 400 V (2-phase)	
Power consumption	Short term consumption approx. 10 kVA	Continous load approx. 0.8 kVA
Rating (cos φ)	0.6 at 230 V	
Connection value	4.6 kVA at 230 V	

Environmental conditions

	Operation	**Transport/ Storage**
accept. ambient temperature	+ 10° ... + 40° C	- 10° ... + 70° C
accept. relative humidity	15 % ... 75 %	10 % ... 100 %

Weight and heat dissipation

	Weight [**kg**]	**Heat dissipation** [**W**]
Stand with X-ray tube assembly including base plate	approx. 285	approx. 200
Generator including base plate and radiation protection shield	approx. 139	approx. 680

Packing and transport routes

largest crate	L 2140 x W 800 x H 1375 mm
Weight(including stand and accessories)	approx. 470 kg

Surface colors

Basic color	White pebbled, Med surface no. 3111 similar to RAL gray - white 9002
Combination color	neutral grey pebbled, Med surface no. 4426 similar to RAL gray 7036 (staubgrau) medical blue, Med surface no. 564E

Additional data

Bus installation	RXB7-120.021.02.
OPDIMA installation	SPB7-230.021.01.

Responsibility of the project manager towards the service contractor

The scope of the project manager's responsibilities requires that he

- is at the installation site when the system arrives
- supports the service contractor in solving problems
- clarifies the final location of the individual components
- checks to ensure that the installation is proceeding as specified
- clarifies problems together with the service contractor prior to the delivery of the system, e. g.
  - establishes the transport route of the truck
  - establishes the transport route within the building

Preparation for installation

Activities that have to be completed before the system's arrival or installation

- None of the construction workers may be still working in the room
- Walls have been finished and painted
- The floor (possibly pre-installation plate) must be present and finished in the system room
- Ceilings are in place
- Room lighting has been installed and is ready for use
- All electrical installation has been completed
- The rooms have been swept clean with a broom
- A room that can be locked is available as an intermediate storage area for the components

Protocols

- This protocol has to be completed and signed by the installation team (service contractor, SIEMENS service engineer or project manager).

NOTICE

The supervising SIEMENS project manager is responsible for the entire project management.
Furthermore, he is responsible for perfect and proper installation of the system.
Perform the further work according to the technical documentation (customer service instructions, installation instructions, etc.).